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September 2, 2004

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**RECEIVED**

**SEP 08 2004**

EPA, REGION III.  
OFFICE OF REGIONAL ADMINISTRATOR

Dear Mr. Welsh:

This letter, including the referenced enclosures, proposes revision of the November 1998 *Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III, regarding Sections 303(d) and 303(e) of the Clean Water Act (MOU)*. Your countersignature at the end of the letter will signify EPA's agreement to these proposed revisions. The MOU to be revised by this letter addresses the waters identified on Maryland's 1998 303(d) list. Waters identified on subsequent 303(d) lists will be addressed in accordance with federal regulations and guidance and a strategy that will be outlined under a separate cover.

Briefly, this letter:

1. Proposes to extend the long-term schedule for dealing with waters on the 1998 303(d) list by three years, consistent with current EPA policy.
2. Proposes to change the performance period for attending to impairments from the calendar year ending December 31, to the federal fiscal year ending September 30. The annual report and workplan will be submitted by October 31.
3. Clarifies that the focus of the MOU is to address 303(d) listed waters, either by conducting a Total Maximum Daily Load (TMDL) analysis or delisting through other means where a TMDL is unnecessary or inappropriate. The specific ways in which 303(d) listings may be addressed are discussed below.
4. Provides a production schedule to address the 1998 list.

1. The 1998 MOU specified a scheduling period of 10 years to attend to waters on Maryland's 1998 303(d) list, implying completion in 2008. Current EPA guidance allows 8 – 13 years to address listed waters. The MOU did not specify an annual production schedule; however, an annual production schedule was provided separately to EPA in 1998. For the past five years, the Maryland Department of Environment has successfully met or exceeded its annual production schedule goals. Ninety 303(d) listings have been addressed as of the end of calendar year 2003

(61-1998 Listings, 13-2002 Listings, and an additional 15-TMDLs addressing sub-watersheds within a larger listing) (See Enclosure B).

Section V.D. of the MOU recognized that Maryland might not be able to attend to all of the waters on the 1998 303(d) list within the timeframe specified in the MOU due to the potential "inability of Maryland to obtain additional funding, a change in priorities resulting from subsequent approved 303(d) list[s], or other unforeseen circumstances that are beyond the control of Maryland." Consistent with this understanding, this letter proposes to revise the scheduling period for addressing waters identified on Maryland's 1998 303(d) list from 2008 to 2011 (Enclosure A).

Briefly, the justifications for extending the schedule are funding constraints, the need for consistency with the Chesapeake Bay Agreement, the technical complexity of some TMDLs, the displacement of staff resources to address high priority waters identified on the 2002 303(d) List, and the general desire to ensure high quality analyses. These and related matters are discussed in the enclosed document entitled, *Justification for a Revised Schedule to Address Waters on Maryland's 1998 303(d) List*.

2. This letter further proposes to change the target date for completing each annual schedule from the end of the calendar year (December 31), to the end of the federal fiscal year (September 30). The deadline is being changed to minimize the occurrence of public comment periods during the holiday season. It is also being changed because submission dates that correspond with the end of the calendar year, which coincides with the holidays, place great stress on staff, thereby undermining staff retention (see Enclosure C for the 2004-2006 schedule).

3. This letter clarifies that MDE may address a listed impairment by means other than establishing a TMDL. Appropriate responses may include the establishments of a TMDL, demonstration that the water quality standards are being met, demonstration of an error in the listing, documentation that another enforceable activity will mitigate the impairment, or demonstration that the cause of the impairment is due to a form of pollution other than a pollutant. This clarification is consistent with the existing MOU, which notes that TMDLs will be developed "where necessary" for the 1998 list (p.3), and that TMDLs do not need to be developed for water quality limited segments removed from future lists approved by EPA (p.6). This letter also clarifies the definition of "address". "Address" includes beginning work that may include model/method development or monitoring. "Address" does not necessarily imply that all aspects of an impairment will be resolved within five years. Depending on the complexity of the system and the scientific issues involved, final resolution may take longer, but all listings will be completed within 8 - 13 years per EPA policy.

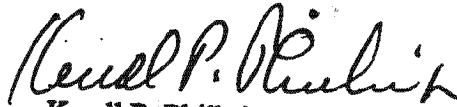
4. The Maryland Department of the Environment is committed to maintaining a robust pace in its efforts to address 303(d) listings. A plan has been developed to focus on the 1998 listings, which has resulted in a projected yearly schedule of submittals to EPA. This is elaborated upon in the enclosure to this letter entitled *Justification for a Revised Schedule to Address Waters on Maryland's 1998 303(d) List*. However, this schedule remains subject to the qualifications identified in Section III. D. of the original MOU and set forth in item 1 above. Enclosure D documents Maryland's efforts in TMDL monitoring, development and documentation.

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Although the bulk of outstanding 303(d) listings are from 1998 and prior lists, MDE has a record of addressing new 303(d) listings that take priority over existing listings. MDE will continue this practice in addition to addressing the 1998 list under the terms of the MOU. To ensure steady progress on new listings, MDE will document a process for attending to listings subsequent to 1998, which we hope to forward to you shortly.

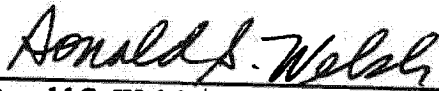
We would appreciate your consideration and concurrence with the refinements to the MOU that are proposed in this letter and supporting enclosures. If you have any questions, please contact Dr. Richard Eskin at (410) 537-3572. We are enclosing copies for your signature. If you agree with this proposal, please sign both copies and return them to MDE. We will countersign and return an original to you.

Very truly yours,



Kendl P. Philbrick, Secretary  
Maryland Department of the Environment

Countersigned:



Donald S. Welsh  
Regional Administrator  
US EPA Region III

Kendl P. Philbrick  
Secretary  
Maryland Department of the Environment

Enclosures A, B, C, D, D2 and E

cc: Stephen Pattison, Assistant Secretary  
Richard A. Eskin, Ph.D.  
Robert Summers, Ph.D.  
Jennifer Wazenski, Assistant Attorney General  
Dominique Lueckenhoff, Office of Watersheds, EPA Region III

Enclosure A to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III

Justification for a Revised Schedule to Address Waters on Maryland's 1998 303(d) List

In November 1998, Maryland signed an agreement with the Region III Office of the U.S. Environmental Protection Agency entitled, *Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III, regarding Sections 303(d) and 303(e) of the Clean Water Act* (MOU). Section V.D. of the MOU recognized that Maryland might not be able to address all of the waters on the 1998 303(d) list within the timeframe specified in the MOU due to the potential "inability of Maryland to obtain additional funding, a change in priorities resulting from subsequent approved 303(d) list[s], or other unforeseen circumstances that are beyond the control of Maryland." This document details justifications, consistent with Section V.D, for revising the deadline of the period of performance from 2008 to 2011.

**Fiscal Challenges:** Because of a significant economic downturn over the last several years, State tax revenues have decreased significantly resulting in reductions in the Total Maximum Daily Load (TMDL) program budget. Although the Maryland Department of Environment (MDE) continues to have an effective TMDL program, the budget reductions are having an impact on the pace of TMDL development. Fiscal impacts are being felt across State agencies and the option of shifting resources to fill the void is not available. Efforts to increase staff productivity and to streamline the TMDL analyses have been made to maintain appropriate progress.

**Priorities of Newly Listed Waters:** The MOU schedule at issue applies to the 1998 303(d) list. It must be recognized, however, that in some cases, waters identified on subsequent 303(d) lists have higher priority than some waters on the 1998 list. Waters in which fish tissue show signs of excessive mercury content, posing an increased risk to human health, are a case in point. Thirteen (13) such waters appear on the 2002 303(d) list; during 2002, MDE addressed nine of these listings through TMDL development. Resources were devoted to these TMDLs at the expense of working on lower priority waters on the 1998 list. This justifies providing more time to address the lower priority waters on the 1998 list. As new impairments are discovered they will be reflected in revised 303(d) lists, which will also reflect revised priorities, including potential changes for previous listings. As part of the Impaired Waters List, priorities are subject to public review and EPA approval.

**Complexity of Some TMDLs and Desire to Maintain High Quality Analyses:** When the 1998 MOU was developed, Maryland had limited experience conducting TMDL analyses. A good faith effort was made at that time to estimate a schedule by which the TMDLs could be completed. Since that time Maryland has gained a greater appreciation for the complexity of some analyses. For example, TMDL analyses for the Baltimore Harbor will address contaminants in the bottom sediments. Maryland is on the forefront nationally in addressing this aspect of water quality. Maryland is also devoting significant resources to deriving credible methods for conducting TMDL analyses for pollutants without existing numeric criteria or analytical approaches, apart from conducting the analyses themselves. Examples include methodologies for mercury in lakes, for non-tidal streams with habitat impacts, for tidal shellfish waters impacted by bacteria, and for non-tidal waters impacted by bacteria. The time devoted to developing analysis methodologies detracts from the time devoted to actually conducting the analyses. This, and the desire to ensure the quality of our analyses, has revealed that the original schedule is too ambitious.

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**Coordination with the Chesapeake Bay Agreement:** Maryland has a long tradition of working cooperatively with stakeholders to improve the quality of the Chesapeake Bay and major tributaries, like the Potomac River. Because of concerns that the regulatory aspects of the TMDL program would undermine the cooperative Bay efforts, an agreement was reached among Bay states in which the Bay Community would strive to meet water quality goals in the Chesapeake Bay by 2010. Formal TMDLs will serve as a backup to enforce this agreement if water quality standards are not achieved.

In addition to the Chesapeake Bay itself, many major tributaries in Maryland are physically coupled with the Bay (i.e., one cannot distinguish where the tributary ends and the Bay begins). Similarly, many segments identified on Maryland's 303(d) list are simply open waters of the Bay (e.g., Tangier Sound, Kent Island Bay, Eastern Bay). Twenty-one (21) waters of this kind have been identified (see the list at the end of this document). Developing formal TMDLs for these waters before 2010 would undermine the spirit of the agreement described above. Nevertheless, MDE is contributing significant fiscal resources and staff to collect data and develop the analytical tools to ensure Maryland has the technical capacity to fulfill its TMDL obligations. This is being done by MDE as part of the Chesapeake Bay Program framework.

Specifically, Maryland conducted much of the monitoring used to support modeling of the Chesapeake Bay and tidal tributaries. MDE staff attend the Bay Program Modeling Subcommittee meetings at which technical decisions are made on these matters. More significantly, MDE devoted a staff person to work in the Bay Program Office for a year during the development of the models used to develop the loading limits for the Bay and tidal tributaries. MDE continues to devote resources to address the limitations of the current Bay modeling. Specifically, MDE funded two years of monitoring in the tidal and non-tidal parts of the Potomac River, and has funded the bulk of the Phase V watershed model for the entire Potomac River basin, at a cost of about \$1.6 million. It is essential that these investments of staff and financial resources be recognized as essential elements of the very complex regional process to address the 1998 303(d) list in a manner that is coordinated with the Chesapeake Bay Program.

**Pace of Addressing the 1998 303(d) List:** In addition to those waters related to the Chesapeake Bay effort, Maryland will strive to focus on an average of about 24 of the 1998 listings per year between 2003 and 2011. Maryland would like to clarify that the definition of "address" includes beginning work that may include model/method development or monitoring. "Address" does not necessarily imply that all aspects of an impairment will be resolved within five years. Depending on the complexity of the system and the scientific issues involved final resolution may take longer, but all listings will be completed within 8- 13 years per EPA policy. Maryland remains committed to ensuring a consistent pace of addressing the 350 cases on the 1998 303(d) list. As of the end of 2003, 61 listings had been addressed, leaving about 289 cases. MDE will handle open water body segments dominated by Bay waters identified on the list below for nutrients within the context of the regional Chesapeake Bay Program process. Subtracting these 21 cases from 289 leaves a remainder of outstanding cases identified on Maryland's 1998 303(d) list of approximately 268.

Sixty-six (66) listings for suspended sediments in tidal waters will pose a significant challenge, in great part due to a lack of understanding about cause and effect relationships, such as the role of shoreline erosion. These listings will be handled in coordination with the Chesapeake Bay Program. Although MDE is committed to attending to all of the listings by 2011, it is difficult to specify the pace by which the 66 tidal sediment cases may be addressed. However, MDE plans to focus on these listings all at

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one time as part of a comprehensive analysis in coordination with the Chesapeake Bay Program. With this in mind, we set aside the 66 tidal sediment impairments from the 268 remaining cases, leaving about 202 cases to be dealt with directly by MDE within the coming nine years. This suggests concentrating on about 24 cases per year from the 1998 303(d) list. It should be noted that the actual annual workload is likely going to be greater than 24 cases per year, because progress must be made on addressing waters that have been listed after 1998.

As noted in the previous section, MDE is contributing significantly to building the technical capacity to support the 2007 reevaluation of the 2000 Chesapeake Bay Agreement. Among other things, the waters listed below will be addressed by this joint effort. Although formal TMDLs for these waters will not be proposed at that time, this major milestone will help ensure that the Chesapeake Bay Program and Maryland's TMDL Development Program are appropriately integrated by 2010.

**1998 303(d) Listings for Nutrients that are being Addressed in the Context of the  
Chesapeake Bay Agreement**

<b>MD 8-digit Basin Code</b>	<b>Basin Name</b>
02-12-02-01	Lower Susquehanna River
02-12-02-04	Susquehanna River/Conowingo Dam
02-13-02-06	Tangier Sound
02-13-04-01	Honga River
02-13-04-02	Little Choptank River
02-13-04-03	Lower Choptank River
02-13-05-01	Eastern Bay
02-13-05-04	Kent Narrows / Prospect Bay
02-13-05-05	Lower Chester River
02-13-05-11	Kent Island Bay
02-13-07-05	Aberdeen Proving Ground
02-13-08-01	Gunpowder River tidal
02-13-09-02	Bodkin Creek
02-13-10-05	West Chesapeake Drainage
02-13-99-96	Upper Chesapeake Bay
02-13-99-97	Middle Chesapeake Bay
02-13-99-98	Lower Chesapeake Bay
02-14-01-01	Lower Potomac River (Smith Pt to Mouth)
02-14-01-02	Lower Potomac River (Marshall Hall to Smith Pt)
02-14-02-01	Middle Potomac River (Chain Bridge to Marshall Hall)
02-14-02-02	Potomac River (non-tidal) (Monocacy to Chain Bridge)
<b>TOTAL COUNT*</b>	<b>21</b>

\* The actual count will change with the segmentation introduced with the new water quality standards but the same waters will be covered.

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**1998 303(d) Listings for Sediments that are being Addressed in the Context of the Chesapeake Bay Agreement**

MD 8-Digit Basin Number	Basin Name
02-12-02-01	Lower Susquehanna River
02-13-02-02	Lower Pocomoke River
02-13-02-04	Dividing Creek
02-13-02-05	Nassawango Creek
02-13-02-06	Tangier Sound
02-13-02-08	Manokin River
02-13-03-01	Lower Wicomico River
02-13-03-03	Wicomico Creek
02-13-03-06	Marshyhope Creek
02-13-03-08	Transquaking River
02-13-04-01	Honga River
02-13-04-03	Lower Choptank River
02-13-04-04	Upper Choptank River
02-13-04-05	Tuckahoe Creek
02-13-05-01	Eastern Bay
02-13-05-02	Miles River
02-13-05-03	Wye River
02-13-05-04	Kent Narrows/Prospect Bay
02-13-05-05	Lower Chester River
02-13-05-06	Langford Creek
02-13-05-07	Corsica River
02-13-05-08	Southeast Creek
02-13-05-09	Middle Chester River
02-13-05-10	Upper Chester River
02-13-05-11	Kent Island Bay
02-13-06-01	Lower Elk River
02-13-06-02	Bohemia River
02-13-06-03	Upper Elk River
02-13-06-04	Back Creek
02-13-06-08	Northeast River
02-13-06-09	Furnace Bay
02-13-06-10	Sassafras River
02-13-06-11	Stillpond-Fairlee
02-13-07-01	Bush River
02-13-07-05	Aberdeen Proving Ground
02-13-07-06	Swan Creek
02-13-08-01	Gunpowder River

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02-13-08-03	Bird River
02-13-08-07	Middle River - Browns Creek
02-13-09-01	Back River
02-13-09-02	Bodkin Creek
02-13-09-03	Baltimore Harbor
02-13-10-01	Magothy River
02-13-10-02	Severn River
02-13-10-03	South River
02-13-10-04	West River
02-13-10-05	Other West Chesapeake Bay Drainages
02-13-11-01	Patuxent River lower
02-13-11-02	Patuxent River middle
02-13-11-03	Western Branch
02-14-01-01	Potomac River Lower tidal (Smith Pt. to Mouth)
02-14-01-02	Potomac River Middle tidal (Marshall Hall to Smith Pt.)
02-14-01-03	St. Mary's River
02-14-01-04	Breton Bay
02-14-01-05	St. Clements Bay
02-14-01-06	Wicomico River
02-14-01-07	Gilbert Swamp
02-14-01-08	Zekiah Swamp
02-14-01-09	Port Tobacco River
02-14-01-10	Nanjemoy Creek
02-14-01-11	Mattawoman Creek
02-14-02-01	Potomac River Upper tidal (Woodrow Wilson Bridge to Marshall Hall)
02-14-02-03	Piscataway Creek
02-14-02-04	Oxon Run
02-14-02-05	Anacostia River
02-14-02-06	Rock Creek
<b>Total*</b>	<b>66</b>

\* The actual count will change with the segmentation introduced with the new water quality standards but the same waters will be covered.

**Enclosure B to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III**

**Table 1a. Maryland's Plan for 1998 303(d) Listings through September 2011.**

<b>Submittal Date</b>	<b>1998 303(d) List</b>
December 2003 <sup>1</sup>	61
September 2004 <sup>2</sup>	25
Oct. 2004 – Sept. 2006 <sup>2</sup>	60
Bay Program Reevaluation Process <sup>4</sup>	87
Oct. 2006 – Sept. 2011 <sup>3</sup>	117 <sup>5</sup>
<b>Total</b>	<b>350</b>

<sup>1</sup> Total listings addressed are cumulative up to December 2003 submittal.

<sup>2</sup> See detailed workplan for listings to be addressed (Enclosure C).

<sup>3</sup> In 2006, MDE will submit a detailed work plan to address 1998 listings in the following 2 years (through 2008).

<sup>4</sup> As a component of the upcoming Chesapeake Bay Program Reevaluation process, MDE will address 66 tidal sediment impairments and 21 tidal nutrient impairments in the State's portion of the Chesapeake Bay.

<sup>5</sup> During the period, Oct. 2006 through Sept. 2011, MDE will address the remaining 1998 303(d) listings. Of these 117 listings, approximately one-third are for toxic substances, with the majority of the remaining listings for nutrients. This works out to an average of about 24 per year.

**Table 1b. Calculation of Listings to focus upon during the October 2006-September 2011 timeframe.**

<b>Total 1998 Listings (including Chesapeake Bay Segments)</b>	<b>350</b>
<b>Listings addressed through Dec. 2003</b>	<b>61</b>
<b>Listings addressed through Chesapeake Bay Program (CBP) Coordination</b>	<b>21</b>
<b>Tidal Sediment Listings addressed through CBP</b>	<b>66</b>
<b>Listings to focus upon from Jan. 2003- Sept. 2004</b>	<b>25</b>
<b>Listings to focus upon from Oct. 2004 – Sept. 2006 (see Enclosure B)</b>	<b>60</b>
<b>Number of Remaining Listings (Oct. 2006 – Sept. 2011)</b>	<b>117</b> <b>(24/year)</b>

**Enclosure B to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III**

**Table 2. Summary of Approved and/or Submitted Projects by Pollutant<sup>1</sup>.**

<b>Pollutant</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>Total**</b>
Nutrients	1	7	13	15	13	3	52
Sediments		2	1	4	1	1	9
pH					1		1
Bacteria							
Toxics		1	2		8	7	18
Mercury					9	1	10
Grand Total	1	10	16	19	32	12	90

\*\* Totals shown include impairments addressed that may not directly count toward addressing the 1998 303(d) list impairments. Specifically, the mercury listings were not on the 1998 list. In addition some listings were subsequently divided geographically to recognize different drainages and sources and therefore, one listing could result in two TMDLs.

**Table 3. Summary of Listings to Focus upon Oct. 2006 – Sept. 2011.**

<b>Pollutant</b>	<b>Listings to be Addressed</b>
Nutrients	61
Sediments	14
pH	6
Toxics	27
Bacteria	9
Total	117

<sup>1</sup> For more details see Enclosure D.

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Workplan for Addressing 1998 Listings September, 2004 through September, 2006.

Due date	Listed Waterbody	Impairing Substance	Numbers
September 2004			
	Back River	Zinc	1
	Baltimore Harbor	Chromium	2
	Baltimore Harbor, NW Portion	Zinc	1
	Baltimore Harbor, NW Portion	Lead	1
	Bear Creek	Zinc	1
	Shellfish Restricted Areas	Bacteria	16
	Youghiogheny River	Bacteria	1
	Rock Creek in the Patapsco River Basin	Bacteria	1
	Piney Run Reservoir	Nutrients	1
September 2005			25
	Back River	Nutrients	1
	Baltimore Harbor	Nutrients	1
	Breton Bay	Nutrients	1
	Chester River	Nutrients	2
	Prettyboy Reservoir	Nutrients	1
	Loch Raven Reservoir	Nutrients & Sediments	2
	Northeast River	Zinc	1
	Shellfish Restricted Areas	Bacteria	12
	Wicomico River Headwaters	Bacteria	1
	Youghiogheny River	Low pH	1
September 2006			23
	Curtis Creek	Zinc, PCBs	2
	Nontidal Waters	Sediment	17
	Triadelphia Reservoir (Brighton Dam)	Nutrients & Sediments	2
	T. Howard Duckett Reservoir (Rocky Gorge)	Nutrients	1
	Pocomoke River	Nutrients	3
	Shellfish Restricted Areas	Bacteria	12
Grand Total			37
			85

1. The rest of the 1998 Listings will be addressed in 5 years (2007 - 2011).
2. We may do more per year up to 2006 based on available resources.
3. Multiple TMDLs will be required to address some restricted shellfish area listings. The estimate outlined above is based on addressing all listings over a three year period, and annual estimates may be subject to change due to logistical issues. However, all shellfish listings with sufficient monitoring data will be addressed in a three-year period, by September 2006.

**Enclosure D to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III**

Maryland has instituted a five-year watershed cycling strategy. The State has been divided up into five large watersheds, each encompassing approximately 20% of the State. The strategy consists of three steps: monitoring, modeling and TMDL development (if required) and implementation, which is not in the context of this agreement. Maryland anticipates that each step will take approximately one year to complete in each watershed. Because the cycling strategy repeats itself, the watershed cycling strategy establishes a natural evaluation framework as the cycle is repeated. Implementation of the steps will be staggered through each of the watersheds and resources for each step focused in one watershed each year starting with the Lower Eastern Shore in 1998.

Maryland's cycling strategy has been successful in that all monitoring throughout the five larger watersheds has been completed for eutrophication. A major portion of the toxic monitoring has also been completed. In years six (2004) and seven (2005), Maryland will be focusing on monitoring for sediments, fecal coliform and additional toxics monitoring to address numerous listings. In year eight (2006), Maryland intends to reevaluate the first large watershed (the Lower Eastern Shore) and return to the original five-year monitoring schedule.

TMDL development initially followed the same pattern as the first few years of water quality monitoring for TMDL development, which focused on one large watershed per year. Maryland's modeling and development has encountered some technically complex systems, such as Baltimore Harbor, causing some delays and shifts of resources to produce the necessary TMDLs to meet the production requirements for the TMDL program. As a result of these challenges, TMDL development has focused on areas where data is available and the systems can be easily modeled using WASP or a Vollenweider analysis. Maryland has many projects underway that do not necessarily produce TMDL documents such as methodology development for sediments and fecal coliform impairments. Maryland also has been coordinating with Chesapeake Bay Program to ensure that information used for TMDL efforts and C2K are the same. Using this cooperation, the next version of the Bay Watershed Model (Phase V) will be used in conjunction with Maryland's water quality models to produce TMDLs for many areas of Maryland, including the Potomac River.

Enclosure D2 provides an accounting of the 303(d) listings that have been addressed to date by Maryland. The report is first broken down by the year in which the listings were addressed. Then, for MOU tracking purposes, the report is separated into projects that address items in the MOU (noted by "yes" next to "count to MOU") and projects that may address only part of a listing or were listed in 2002 (noted by "no" next to "count to MOU").

## Current Status of 303(d) Listings Addressed in Maryland

Year Listing Addressed 1998

Count to MOU		Yes			
8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date Current Status
02140109	Port Tobacco River	Nutrients	1998	2/16/99	3/18/99 Approved

Year Listing Addressed 1999

Count to MOU		Yes			
8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date Current Status
02130301	Impoundment, Tony Tank Lake	Nutrients	1998	10/5/99	12/10/99 Approved
02130301	Impoundment, Tony Tank Lake	Sediments	1998	10/5/99	12/10/99 Approved
02130308	Transquaking River	Nutrients	1996	1/3/00	3/9/00 Approved
02130509	Urieville Lake	Nutrients	1996	3/10/99	8/24/99 Approved
02130509	Urieville Lake	Sediments	1996	3/10/99	8/24/99 Approved
02130901	Black River	Chlordane	1996	7/26/99	12/17/99 Approved
02131103	Western Branch	Nutrients (BOD)	1996	12/3/99	6/6/00 Approved
02141002	Impoundment, Lake Habeeb	Nutrients	1998	12/23/99	3/2/00 Approved
05020202	Impoundment, Broadford Lake	Nutrients	1998	12/23/99	3/2/00 Approved

Count to MOU		No			
8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date Current Status
02130611	Fairlee Creek, part of the Stillpond/Fairlee Watershed	Nutrients	1996	2/10/98	3/18/99 Approved

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Year Listing Addressed 2000

<i>Count to MOU</i>		<i>Yes</i>		<i>No</i>	
<i>8-digit Basin Number</i>	<i>Basin Name</i>	<i>Impairment</i>	<i>Year Listed</i>	<i>Impairment</i>	<i>Year Listed</i>
02130208	Manokin River	Nutrients	1996		
02130301	Lower Wilcomico River	Nutrients	1996		
02130303	Wilcomico Creek	Nutrients	1996		
02130304	Wilcomico River headwaters:	Nutrients	1996		
	Impoundment, Johnson Pond				
02130304	Wilcomico River headwaters:	Sediment	1996		
	Impoundment, Johnson Pond				
02130306	Marshyhope Creek				
02130507	Conica River	Nutrients	1996		
02130602	Bohemla River	Nutrients	1996		
02130803	Baltimore Harbor	Chlordane	1996		
02130804	Impoundment, Lake Roland	Chlordane	1996		
02140504	Conococheague Creek	Nutrients	1996		
02141006	Savage River	Nutrients	1996		
05020201	Youghiogheny River	Nutrients	1996		
05020202	Little Youghiogheny River	Nutrients	1996		
05020204	Casselman River	Nutrients	1996		
<i>Count to MOU</i>		<i>No</i>		<i>No</i>	
<i>8-digit Basin Number</i>	<i>Basin Name</i>	<i>Impairment</i>	<i>Year Listed</i>	<i>Impairment</i>	<i>Year Listed</i>
02130308	Chicamaconico River part of the Transquaking River watershed	Nutrients	1996		

Enclosure D2 to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III

Year Listing Addressed 2001

Count to MOU 8-digit Basin Number	Basin Name	Yes		Year Listed	Submittal Date	Approval Date	Current Status
		Impairment	Yes				
02130106	Impoundment, Big Millpond	Nutrients		1998	12/10/01	4/4/02	Approved
02130203	Impoundment, Adkins Pond	Nutrients		1998	12/7/01	3/27/02	Approved
02130203	Impoundment, Adkins Pond	Sediments		1998	12/7/01	3/27/02	Approved
02130610	Sassafras River	Nutrients		1996	12/20/01	4/1/02	Approved
02130611	Stillpond Creek, part of the Stillpond/Fairlee Watershed	Nutrients		1996	12/20/01	3/25/02	Approved
02130706	Swan Creek	Nutrients		1996	12/20/01	3/27/02	Approved
02131105	Impoundment, Centennial Lake	Nutrients		1998	12/27/01	4/24/02	Approved
02131105	Impoundment, Centennial Lake	Sediments		1998	12/27/01	4/24/02	Approved
02140207	Impoundment, Clopper Lake	Nutrients		1998	12/27/01	4/4/02	Approved
02140208	Impoundment, Clopper Lake	Sediments		1998	12/27/01	4/4/02	Approved
02140502	Antietam Creek	Nutrients		1996	12/27/01	9/16/02	EPA Concurrence with WQA for BOD
02141004	Georges Creek	Nutrients		1996	12/19/01	2/6/02	Accepted as information to delist

Count to MOU 8-digit Basin Number	Basin Name	No		Year Listed	Submittal Date	Approval Date	Current Status
		Impairment	No				
02130103	Bishopville Prong (Isle of Wight Bay - Northern Coastal Bays (NCB))	Nutrients		1996	NCB - 12/31/01	NCB - 4/17/02	Approved
02130103	Herring Creek (Isle of Wight Bay - Northern Coastal Bays (NCB))	Nutrients		1996	NCB - 12/31/01	NCB - 4/17/02	Approved
02130103	document including Shingle Landing Prong (Isle of Wight Bay - Northern Coastal Bays (NCB))	Nutrients		1996	NCB - 12/31/01	NCB - 4/17/02	Approved
02130103	St. Martin River (Isle of Wight Bay - Northern Coastal Bays (NCB))	Nutrients		1994	NCB - 12/31/01	NCB - 4/17/02	Approved

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United States Environmental Protection Agency, Region III

02130103	of Wight Bay - Northern Coastal Bays (NCB)	Nutrients	1996	NCB - 12/31/01	NCB - 4/17/02	Approved
02130106	Turville Creek (Isle of Wight Bay - Northern Coastal Bays (NCB) document including Impoundment, Big Millpond	Sediments	1998	12/10/01		Approved
02130611	Worton Creek, part of the Stillpond/Fairlee watershed	Nutrients	1996	12/7/01	4/4/02 2/6/02	Approved Approved

Year Listing Addressed 2002

Count to MOU

8-digit Basin Number	Basin Name	Yes Impairment	Year Listed	Submittal Date	Approval Date	Current Status
02130105	Newport Bay (Newport Bay document includes Newport Creek (NC), Langford Creek Southeast Creek Little Gunpowder Falls Middle River - Wilson Pt. Middle River - Wilson Pt. Baltimore Harbor Baltimore Harbor Baltimore Harbor Baltimore Harbor	Nutrients	1998	12/31/02	10/31/03	Approved
02130506		Nutrients	1996	12/16/02	1/22/03	EPA Concurrence with WQA
02130508		Nutrients	1996	12/31/02	9/22/03	Approved
02130804		Nutrients Heavy Metals	1996	12/26/02	2/20/02	EPA Concurrence with WQA
02130807		Copper	1998	10/02	4/30/03	Delisted 2002 303(d) List
02130807		Nickel	1998	10/02	4/30/03	Delisted 2002 303(d) List
02130903		Copper	1996	10/02	04/30/02	Moved to Part 4b of 2002 303(d) List: ICS Listings -
02130903		Cyanide	1996	10/02	04/30/03	Moved to Part 4b of 2002 303(d) List: ICS Listings -
02130903		Mercury	1996	10/02	04/30/03	Moved to Part 4b of 2002 303(d) List: ICS Listing -
02130903		Nickel	1996	10/02	04/30/03	Moved to Part 4b of 2002 303(d) List: ICS Listing -
02130904	Jones Falls	Zinc	1996	12/24/02	2/20/03	303(d) List: ICS Listings - SCM
02140103	Impoundment, St. Mary's Lake	Nutrients	1998	12/20/02	2/27/03	EPA Concurrence with WQA
02140206	Impoundment, Lake Bernard Frank	Nutrients	1998	12/16/02	1/22/03	EPA Concurrence with WQA
02140206	Impoundment, Needwood Lake	Nutrients	1998	12/20/02	1/22/03	EPA Concurrence with WQA
05020203	Cherry Creek in the Deep Creek Basin	Low pH	1996	12/17/02	11/26/03	Approved

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Enclosure D2 to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III

Year Listing Addressed 2003

Count to MOU

8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date	Current Status
02130608	Northeast River	Nutrients	1996	1/8/04		Submitted
02130702	Edgewater Village Lake	Nutrients	1998	11/7/03	12/16/03	Approved to complete a UAA
02130802	Lower Gunpowder Falls	Heavy Metals	1996	9/24/03	11/10/03	Approved
02130805	Loch Raven Reservoir	Heavy metals	1996	9/24/03	11/10/03	Approved
02130806	Prettyboy Reservoir	Heavy Metals	1996	9/24/03	11/10/03	Approved
02130907	Liberty Reservoir	Chromium	1996	9/24/03	11/10/03	Approved
02130907	Liberty Reservoir	Lead	1996	9/24/03	11/10/03	Approved
02130908	Impoundment, Piney Run Reservoir	Sediments	1998	11/4/03	12/18/03	Approved
02140111	Mattawoman Creek	Nutrients	1996	1/21/04		Submitted

Count to MOU

8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date	Current Status
02130807	Middle River - Browns Creek	Cadmium - water column	2002	9/24/03	11/10/03	Approved
02130807	Middle River - Browns Creek	Lead - water column	2002	9/24/03	11/10/03	Approved
05020202	Impoundment, Broadford Lake	Mercury in fish tissue	2004	1/8/04		Submitted

Year Listing Addressed 2004

Count to MOU

8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date	Current Status
02130903	Bear Creek	Chromium	1998	8/23/04		Submitted
02130903	Northwest Branch, Inner Harbor	Chromium	1998	8/23/04		Submitted

**Enclosure D2 to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III**

Count to MOU 8-digit Basin Number	Basin Name	Impairment	Year Listed	Submittal Date	Approval Date	Current Status
02130510	Impoundments, Millington Wildlife Area	Mercury in fish tissue	2003			Under Development
02131104	Impoundment, Cash Lake	Mercury in fish tissue	2003			Under Development
Year Listing Addressed 2004-2006						
Count to MOU 8-digit Basin Number	Basin Name	Yes Impairment	Year Listed	Submittal Date	Approval Date	Current Status
02130202	Lower Pocomoke River	Nutrients	1996			Under Development
02130203	Upper Pocomoke River	Nutrients	1996			Under Development
02130204	Dividing Creek	Nutrients	1996			Under Development
02130205	Nassawango Creek	Nutrients	1996			Under Development
02130509	Middle Chester River	Nutrients	1996			Under Development
02130510	Upper Chester River	Nutrients	1996			Under Development
02130901	Back River	Nutrients	1996			Submitted
02130901	Back River	Zinc	1998	4/1/04		Under Development
02130903	Baltimore Harbor	Nutrients	1996			Public Review has ended
02130903	Bear Creek	Zinc	1996			Under Development
02130903	Curtis Bay/Creek	PCBs	1998			Under Development
02130903	Curtis Bay/Creek	Zinc	1998			Under Development
02130903	Middle Harbor	Zinc	1998			Under Development
02130903	Northwest Branch, Inner Harbor	Lead	1998			Public Review has ended
02130903	Northwest Branch, Inner Harbor	Zinc	1998			Public Review has ended
02130903	Rock Creek in the Patapsco River Basin	Fecal Coliform	1998			Delisting 2004 303(d) List
02130908	Impoundment, Pinney Run Reservoir	Nutrients	1998			Public Review has ended
02131107	Impoundment, Duckett Reservoir	Nutrients	1998			Under Development
02131108	Impoundment, Triadelphia Reservoir	Nutrients	1998			Under Development
05020201	Youghiogheny River	Low pH	1996			Under Development

**Enclosure E to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III**

This table prepared in response to EPA comments for a "redline" version, and the redline version prepared by EPA are both working documents to assure the parties' mutual understanding of revisions, and are not part of the Memorandum of Understanding.

**SUMMARY TABLE OF THE MOU BETWEEN STATE OF MARYLAND AND THE U.S EPA REGION III REGARDING SECTIONS 303(d) AND 303(e) OF THE CLEAN WATER ACT AND PROPOSED 2004 REVISIONS**

	Original Document (Reference where applicable)	Proposed Revisions (Reference where applicable)
<b>Date</b>	November 18, 1998	2004
<b>Pertinent List</b>	MD's 1998 303(d) List, consisting of MD's 1996 303(d) list and 58 additional waters (Section IIA)	No change
<b>Performance Period</b>	Calendar year, with due date of December 31 (Section IIC)	Federal fiscal year, with due date of September 30
<b>Scheduling Period</b>	10 years, with completion by December 31, 2008 (Section IIC)	13 years, with completion by September 30, 2011
<b>Focus</b>	TMDL development	Addressing 303(d) listings
<b>Priority Deadlines</b>	High priority: address within five years of listing All others: address within 10 years of listing (Section IIC)	No change. Clarifications: MDE may address a listed impairment by means other than establishing a TMDL. Appropriate responses may include the establishments of a TMDL, demonstration that the water quality standards are being met, demonstration of an error in the listing, documentation that another enforceable activity will mitigate the impairment, or demonstration that the cause of the impairment is due to a form of pollution other than a pollutant. "Address" means begin work that may include model/method development or monitoring. Address does not necessarily imply that all aspects of an impairment will be resolved within five years. Depending on the complexity of the system and the scientific issues involved final resolution may take longer but all listings will be completed within 8 - 13 years per EPA policy.
<b>Development Schedule</b>	Not specified; however, MD did provide a schedule for 1999 through 2008	Includes a plan to address 1998 listings (Enclosure B) and a workplan for September 2004 through September 2006 (Enclosure C) which supersede previous schedules.

**Enclosure E to September 2, 2004 letter revising Memorandum of Understanding between the State of Maryland and the United States Environmental Protection Agency, Region III**

<b>Annual Workplan</b>	<b>Due by August 1 each year (Section IIG)</b> <ul style="list-style-type: none"> <li>• Included as part of the annual report</li> <li>• Identifies watersheds that will be the focus of monitoring and modeling/TMDL development during the following two federal fiscal years</li> <li>• Identifies the TMDLs to be established by MD in the following federal fiscal year</li> </ul>	Due by October 31 each year
<b>Annual Report</b>	<b>Due by August 1 each year (Section VI)</b> <ul style="list-style-type: none"> <li>• Describes progress toward completion of the obligations identified in the MOU <ul style="list-style-type: none"> <li>◦ Cycling Strategy and workplan</li> <li>◦ Current and projected funding</li> <li>◦ Other related issues or problems that prevent or delay accomplishment of MOU requirements</li> </ul> </li> </ul>	Due by October 31 each year
<b>Termination</b>	Upon establishment of TMDLs for all water quality limited segments on the 1998 303(d) list and the submission of a revised CPP, which MD anticipates will be completed by October 1, 2008 (Section VIII)	Completion of addressing all 1998 303(d) listings in September 2011.
<b>Other</b>	<ul style="list-style-type: none"> <li>• Sets forth duties for developing MD's 303 (d) list (Section I)</li> <li>• Stresses watershed approach for TMDL development (Section IID)</li> <li>• Describes the process by which MD will facilitate EPA's review of its CPP (Section III)</li> <li>• Specifies that MDE will make an effort to provide EPA with preliminary draft TMDLs well in advance of any deadlines (Section IIG)</li> </ul>	<ul style="list-style-type: none"> <li>• Not discussed</li> <li>• No change</li> <li>• Not discussed</li> <li>• No change</li> </ul>

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MEMORANDUM OF UNDERSTANDING between  
THE STATE OF MARYLAND and  
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION III,  
regarding SECTIONS 303(d) AND 303(e) OF THE CLEAN WATER ACT

WHEREAS Section 303(d) of the Clean Water Act ("CWA"), 33 U.S.C. § 1313(d), and the implementing regulations of the United States Environmental Protection Agency ("EPA"), 40 CFR § 130.7(b)-(e), provide for: (1) the biennial submission to EPA of a list (the "303(d) list") which identifies water quality limited segments ("WQLSs") within a state's boundaries still requiring Total Maximum Daily Loads or Total Maximum Daily Thermal Loads (collectively, "TMDLs") for which applicable technology-based effluent limitations and other effluent limitations or controls required by federal, state or local law are not stringent enough to implement water quality standards ("WQSS"); (2) the establishment of a priority ranking for such waters; and (3) the establishment of TMDLs for those WQLSs at levels necessary to attain and maintain the applicable narrative and numerical water quality standards with seasonal variations and a margin of safety;

WHEREAS EPA and the State of Maryland ("Maryland") desire to restore the quality of impaired waters to achieve WQSS pursuant to Section 303(d) of the CWA;

WHEREAS Section 303(e) of the CWA, 33 U.S.C. § 1313(e), and EPA's implementing regulations, 40 CFR § 130.5, provide for EPA's review of Maryland's continuing planning process ("CPP") from time to time;

WHEREAS the State of Maryland has primary responsibility for the identification and prioritization of WQLSs still requiring TMDLs and for establishment of TMDLs pursuant to Section 303(d) of the CWA and implementing regulations;

WHEREAS EPA intends to work with Maryland to assure that water quality-based NPDES permits issued by the Maryland Department of the Environment ("MDE") will include limits that are based on WQSS and consistent with the assumptions and requirements of any applicable waste load allocation in accordance with 40 CFR § 122.44(d)(1)(vii)(A) and (B);

NOW, THEREFORE, EPA AND THE STATE OF MARYLAND HAVE PREPARED THIS MEMORANDUM OF UNDERSTANDING ("MOU") AND EACH AGREE TO USE BEST EFFORTS TO ACCOMPLISH THE FOLLOWING:

This MOU is entered into by the Regional Administrator of Region III of EPA and, on behalf of the State of Maryland, the Secretary of MDE. The Maryland Department of Agriculture and the Maryland Department of Natural Resources are non-signing cooperating agencies.

This MOU sets forth a plan of action for EPA and Maryland to follow through the completion of all of the tasks set forth in Parts II and III herein, regarding the joint fulfillment of obligations set forth under Section 303(d) and (e) of the CWA.

This MOU shall serve as the framework for administering portions of Maryland's water programs. Specifically, it sets forth the respective duties of EPA and Maryland for (1) developing the lists of WQLSs required by CWA Section 303(d), and (2) developing, where necessary, TMDLs for those waters identified on Maryland's 1996 Section 303(d) list approved December 31, 1996, and 1998 303(d) list approved September 28, 1998. It also describes the process by which Maryland will facilitate EPA's review of its CPP. EPA agrees to exercise best efforts to assist Maryland in obtaining additional federal funding for the purpose of carrying out its obligations under the MOU.

I. Section 303(d) List - Maryland will use best efforts to submit to EPA timely lists of WQLSs requiring TMDLS in accordance with Section 303(d) of the CWA and 40 CFR § 130.7.

II. Establishment of TMDLS for all WQLSs on the 1996 and 1998  
303(d) Lists

A. EPA and Maryland agree that the list of WQLSs (set forth in Exhibit A to this MOU) is Maryland's 1998 303(d) list of waters approved by EPA in the letter dated September 28, 1998, which consists of Maryland's 1996 303(d) list approved December 31, 1996, and 58 additional waters.

B. EPA and Maryland understand that TMDLS do not need to be established for any WQLS that are removed from the 1998 303(d) List of WQLSs contained in Exhibit A, and whose removal is approved by EPA. A WQLS may be removed from an approved 303(d) List for any of a number of reasons including but not limited to:

- (1) more recent or more accurate monitoring and assessment information and/or more sophisticated water quality modeling indicates that the WQLS attains WQSs;
- (2) new information indicates that, as a result of changes in conditions, including implementation of technology-based pollution controls, the WQLS is expected to attain applicable WQSs before April 1 of the next even-numbered year as the result of implementation of required pollution controls;

- (3) new information shows that, upon re-examination, the State determines that the original basis for listing the WQLS on the 303(d) list was inaccurate;
- (4) Maryland determines for other reasons consistent with the law and applicable regulations that the WQLS does not need a TMDL pursuant to Section 303(d) of the CWA and 40 CFR 130.7, as amended, and EPA approves Maryland's determination.

C. Subject to available resources, MDE will use best efforts to establish and submit to EPA, on or before December 31, 2008 and in accordance with the Watershed Cycling Strategy described in paragraph II.D. and the schedule attached hereto as Exhibit B, TMDLs for each of the WQLSs identified in Maryland's 1996 303(d) list that are not removed from the list pursuant to section 11.B, above. For the WQLSs added to Maryland's 303(d) list in 1998 and subsequent years, MDE will establish TMDLs within five years of listing for those segments having high priorities, and within ten years and in accordance with the Watershed Cycling Strategy described in paragraph II.D. for all other segments.

D. EPA understands that Maryland intends to develop TMDLs for the WQLSs remaining on the 1998 303(d) list and future 303(d) lists through a watershed approach, as provided in Exhibit C, Maryland Department of the Environment Plan for TMDL Watershed Cycling Strategy ("the Cycling Strategy").

- (1) Five large watersheds have been identified in the Cycling Strategy, each encompassing approximately 20% of the State. See Exhibit C.
- (2) The Cycling Strategy consists of three steps to be conducted in sequence for each watershed. The first step is monitoring. The second step is modeling and TMDL development. The third step, which is outside the scope of this Agreement, is TMDL implementation and watershed-based permitting, as appropriate. Maryland anticipates that each step will take approximately one year to complete in each watershed. Because the five-year cycle repeats itself, the watershed cycling strategy establishes a natural evaluation framework as the cycle is repeated.

- (3) Implementation of these three steps will be staggered through the five watersheds and resources for each step focused in one watershed each year. For example, monitoring will be performed for watershed #1 (the Coastal, Lower Eastern Shore, and Choptank watersheds) in 1998, for watershed #2 (the Upper Western Shore and Upper Eastern Shore watersheds) in 1999, for watershed #3 (the Patapsoco/Back and Lower Western Shore watersheds) in 2000, and so on. Modeling and TMDLS development will be performed for watershed #1 in 1999, for watershed #2 in 2000, for watershed #3 in 2001, and so on.

E. EPA will exercise best efforts to provide federal funding, training, and administrative and technical assistance to Maryland to facilitate its efforts to establish TMDLS for WQLSS in accordance with the Cycling Strategy and pursuant to this MOU.

F. At the request of EPA, Maryland will make available to EPA any existing and readily available water quality-related data which was or could be used to establish TMDLS for all WQLSSs on the 1998 303(d) List and on any subsequent list.

G. EPA and Maryland agree to produce, on or before December 31, 1998, and on or before August 1 of each year after 1998 that this MOU is in effect, an annual workplan that (1) identifies the watersheds that will be the focus of monitoring and modeling/TMDL development during the following two federal fiscal years, and (2) identifies the TMDLs to be established by Maryland in the following federal fiscal year. This workplan will be included as part of the annual report described in Part IV of this MOU. In order to facilitate good communications between the parties, Maryland agrees to use best efforts to send EPA preliminary draft TMDLS well in advance of any deadlines; EPA agrees to use best efforts to review and provide timely comments on those preliminary draft TMDLS.

H. Where TMDLs have been established and approved, Maryland agrees to reissue existing NPDES permits and issue new NPDES permits as necessary to comply with the requirements set forth in 40 CFR § 122.44(d)(1)(vii)(A) and (B). Maryland anticipates that this will be accomplished on a watershed basis through the process established in the Cycling Strategy, as set forth in Exhibit C.

### III. Continuing Planning Process

A. EPA acknowledges that it received Maryland's original CPP prior to November 28, 1975 and approved it. EPA further acknowledges that Maryland transmitted to EPA a "Continuing Planning Process for Water Quality Management" in 1976 and in 1986.

B. Maryland and EPA acknowledge that, the week of July 13, 1998, Maryland provided public notice of its intent to revise its CPP and invited public comment thereon. Maryland agrees to update its CPP and to transmit a document describing its revised CPP to EPA on or before October 1, 1999. EPA agrees to review and provide to Maryland comments on the revised CPP, in accordance with 40 CFR § 130.5, on or before August 15, 2000. Maryland agrees to consider EPA's comments and recommendations regarding the revised CPP.

### IV. Monitoring and Assessment

Maryland will perform chemical and physical monitoring of its waters in accordance with the Cycling Strategy. With respect to biological monitoring, Maryland agrees to perform the tasks set forth in Exhibit D in accordance with the schedule provided in Exhibit D. Once a protocol for application of biological data

is established pursuant to the schedule set forth in Exhibit D, Maryland will conduct biological monitoring in accordance with the Cycling Strategy. In addition, the Maryland Department of Natural Resources will continue its existing monitoring program.

Maryland will utilize all existing and readily available biological monitoring data, in addition to physical and chemical monitoring data, for the purpose of determining WQLSs for the 2000 303(d) list and all 303(d) lists thereafter.

V. Funding

A. The Parties anticipate that in order for Maryland to perform its obligations according to this MOU, it will require additional funding.

B. EPA agrees to use best efforts to assist Maryland in obtaining additional federal funds to help provide adequate resources for establishing TMDLs according to the Cycling Strategy and related work plans to be developed under the MOU.

C. EPA further agrees to be flexible to the extent permitted by the applicable law and the terms of existing grant agreements in its oversight of Maryland's grant-related activities in order to accommodate reasonable and necessary

changes in Maryland work priorities and other tasks set forth in this MOU.

D. EPA recognizes that Maryland may not be able to establish TMDLS within the timeframes specified in the Cycling Strategy and work plans provided for under this MOU due to the inability of Maryland to obtain additional funding, a change in priorities resulting from a subsequently approved 303(d) list, or other unforeseen circumstances that are beyond the control of Maryland. If for any of these reasons, Maryland is unable to establish TMDLS in accordance with the Cycling Strategy and related work plans, then MDE and EPA will attempt to reach agreement on a reasonable extension of time in which Maryland may establish the TMDL. If upon diligent efforts, MDE and EPA are unable to agree on such an extension, MDE understands that EPA, in the exercise of its discretion, may exercise its has authority to establish those TMDLS pursuant to Section 303(d) of the CWA.

VI. Reports

On or before August 1 of each year that this MOU is in effect beginning August 1, 1999, Maryland will provide an annual status report to EPA describing progress toward completion of the obligations identified in this MOU including but not limited to

(1) the Cycling Strategy and workplan described in Part II Section G, above; (2) current and projected funding available to Maryland to carry out the obligations identified herein; and (3) other related issues or problems that prevent or delay accomplishment of the requirements of this MOU.

VII. Legal Effect

A. This MOU creates no cause of action against EPA or the State of Maryland beyond those, if any, that may already exist under State or federal law. In addition, the execution and implementation of this MOU does not constitute an explicit or implicit agreement by the Parties to subject themselves to the jurisdiction of any State or federal court. Nor shall this MOU be construed as an admission by the Parties that they have failed to implement the requirements of Section 303(d) or (e) of the CWA. Nor shall this MOU be construed as creating any right or benefit substantive or procedural, enforceable in law or equity, by any person or entity against any of the Parties. This MOU shall not be construed to create any right to judicial review involving the compliance or non-compliance with this MOU, nor does it constitute a determination on the part of EPA that any particular TMDL is required;

B. Nothing in this MOU shall be construed to require actions by the Parties that are inconsistent with or contrary to local, State or federal laws or regulations or any court order.

VIII. Termination

This MOU shall terminate upon the establishment of TMDLs for all WQLSs on the 1998 Section 303 (d) List for which TMDLs are required and the submission of a revised CPP, which Maryland anticipates will be completed by October 1, 2008.

IX. Modification

A. The Parties recognize that any efforts made by Maryland to implement this MOU are contingent on the availability of funds and other resources.

B. If circumstances change for such issues including but not limited to resource requirements or underlying legal requirements, the Parties may negotiate appropriate modifications


Memorandum of Understanding between MDE and EPA Region III  
regarding Sections 303(d) and 303(e) of the Clean Water Act

to this MOU. Any modifications signed by the EPA Region III  
Regional Administrator and the Secretary of MDE constitute  
modifications of this MOU.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 1998

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

By: \_\_\_\_\_

  
W. Michael McCabe  
Regional Administrator  
USEPA Region III

STATE OF MARYLAND

By: \_\_\_\_\_

Jane T. Nishida  
Secretary  
Maryland Department of the Environment

Memorandum of Understanding between MDE and EPA Region III  
regarding Sections 303(d) and 303(e) of the Clean Water Act

to this MOU. Any modifications signed by the EPA Region III  
Regional Administrator and the Secretary of MDE constitute  
modifications of this MOU.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 1998

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

By: \_\_\_\_\_  
W. Michael McCabe  
Regional Administrator  
USEPA Region III

STATE OF MARYLAND

By: Jane T. Nishida  
Jane T. Nishida  
Secretary  
Maryland Department of the Environment